Module 6

Isometric Projection of Solids- Question bank

1.	A hexagonal prism, side of base 25 mm and height 50 mm rests on HP and one of the edges of its base is parallel to VP. A section plane perpendicular to VP and inclined at 50° to HP bisects the axis of the prism. Draw (i) simple position of solid and (ii) isometric projection of the truncated prism, showing the cut surface.
2.	A cylinder 50 mm diameter and 60 mm height stands on HP. A section plane perpendicular to VP, inclined at 55° to HP cuts the cylinder and passes through a point on the axis at a height of 45 mm above the base. Draw (i) simple position of solid and (ii) isometric projection of the truncated portion of the cylinder, when the cut surface is clearly visible to the observer.
3.	A pentagonal pyramid, 30 mm edge of base and 65 mm height, stands on HP such that an edge of the base is parallel to VP and nearer to it. A section plane perpendicular to VP and inclined at 30° to HP cuts the pyramid passing through a point on the axis at a height of 35 mm from the base. Draw (i) simple position of solid and (ii) isometric projection of the truncated portion of the solid.
4.	A hexagonal prism, side of base 25 mm and height 50 mm rests on HP and one of the edges of its base is parallel to VP. A section plane perpendicular to VP and inclined at 50° to HP bisects the axis of the prism. Draw (i) simple position of solid and (ii) isometric view of the truncated portion of the solid.
5.	A pentagonal pyramid of base side 30 mm and axis length 65 mm is resting on HP on its base with a side of base perpendicular to VP. It is cut by a plane inclined at 30° to HP and perpendicular to VP and passes through a point at a distance 30 mm from the apex. Draw (i) simple position of solid and (ii) isometric view of the truncated portion of the solid.
6.	A cone of base diameter 50 mm and height 70 mm stands on HP with its base. It is cut by a cutting plane inclined at 30° to HP cutting the axis of the cone at a height of 40 mm from its base. Draw (i) simple position of solid and (ii) isometric view of the truncated portion of the solid.
7.	A hexagonal prism, side of base 20 mm and height 60 mm rests on HP on its base with two of the rectangular faces parallel to VP. It is cut by a plane inclined at 30° to HP cutting the axis of the prism at a height of 45 mm from its base. Draw (i) simple position of solid and (ii) isometric view of the truncated portion of the solid.
8.	A cylinder 50 mm diameter and 60 mm axis length rests on HP on one of its bases, a section plane perpendicular to VP inclined at 45 to HP cuts the cylinder and passes through a point on the top base circle of the cylinder. Draw (i) simple position of solid and (ii) isometric view of the truncated portion of the solid.
9	A cone of base diameter 50 mm and height 70 mm stands on HP with its base. It is cut by a cutting plane inclined at 30° to HP cutting the axis of the cone at a height of 45 mm from its base. Draw (i) simple position of solid and (ii) isometric projection of the truncated portion of the solid.